

Shorter Contributions

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First Record of the Rove Beetle *Trigonodemus striatus* LeConte (Coleoptera: Staphylinidae) from Virginia and Additional New Park Records (Coleoptera: Anthicidae, Buprestidae, Carabidae, Cerambycidae, Chrysomelidae) for the George Washington Memorial Parkway

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Continued sorting of Malaise trap samples obtained from national park sites within the George Washington Memorial Parkway (Dyke Marsh Wildlife Preserve, Great Falls Park, and Turkey Run Park) and more recent hand picking, has produced new beetle records for the park and for Virginia. The park boundaries are discussed and delineated on a map provided in Steury (2011). Specimens are deposited at the Turkey Run Park Headquarters of the George Washington Memorial Parkway (GWMP) in McLean, Virginia. These new records are summarized below.

Staphylinidae

Trigonodemus striatus LeConte – Fairfax Co.: western end of Turkey Run Park, 22 October-17 November 2006; Turkey Run Park gulch, 5 September-21 October 2009, both collections B. Steury and D. Smith (GWMP, 2). **NEW STATE RECORD.**

These Virginia records represent a southern range extension from Pennsylvania for this rove beetle. Webster et al. (2012) documented it from New Brunswick, Nova Scotia, Ontario, and Quebec, Canada. Newton et al. (2001) recorded its range as “northeastern United States and southeastern Canada,” Downie & Arnett (1996) included New York, Pennsylvania, and Indiana within its range, and Smetana (1996) added New Hampshire. Evans (2014) provides a macro-image of its dorsal habitus. The genus contains six species known from Taiwan, Japan, North America (2), and China (2), indicating a relict Tertiary distribution (Smetana, 1996). The habitat of *T. striatus* has been described as mature mixed forest, old-growth northern hardwood forest, and eastern white cedar swamp (Webster et al., 2012). It may be an indicator of old growth habitats. It is a fungicolous

species occurring in mushrooms including the genera *Russula* and *Pholiota* (Smetana, 1996; Webster et al., 2012). Captures reported by Smetana (1996) and Webster et al. (2012) were from September and October. These Malaise trap captures, set in mature basic mesic hardwood forest, indicate that *T. striatus* is active in late October and possibly early November in northern Virginia.

Anthicidae

The following records increase the number of antlike flower beetles documented from the park to 12 species (Steury et al., 2013).

Macratrria confusa LeConte – Fairfax Co.: Turkey Run Park ravine, 22 June-6 July 2006, B. Steury and D. Smith (GWMP, 1).

Notoxus desertus Casey – Fairfax Co.: Great Falls Park quarry, 23 May-5 June 2008, B. Steury and D. Smith (GWMP, 1).

Buprestidae

This record increases the tally of jewel beetles known from the park to 27 species (Steury et al., 2012; Steury & Messer, 2015).

Actenodes acornis (Say) – Fairfax Co.: Great Falls Park swamp, 15-29 June 2006, B. Steury and D. Smith (GWMP, 1). Many of the larval host plants documented for this beetle are found in Great Falls Park including *Acer rubrum* L., *Carya glabra* (Mill.) Sweet, *Cercis canadensis* L., *Fagus grandifolia* Ehrh., and *Quercus velutina* Lam. (Steury, et al., 2008; Paiero et al., 2012).

Carabidae

These records increase the number of ground beetles documented from the Potomac River Gorge (POGO), an area that has been surveyed for beetles for over 100 years, to 260 species and raise the park total to 197 (Brown, 2008; Steury et al., 2014; Steury & Messer, 2014, 2015).

Agonum albicrus Dejean – Fairfax Co.: Turkey Run Park river trail, 16-30 July 2009, B. Steury and D. Smith (GWMP, 1). New POGO Record.

Dromius piceus Dejean – Fairfax Co.: Great Falls Park quarry, 5-25 August 2008, B. Steury and D. Smith

(GWMP, 1).

Lebia pulchella Dejean – Fairfax Co.: Great Falls Park quarry, 19-30 June 2009, B. Steury and D. Smith (GWMP, 1). New POGO Record.

Perigona pallipennis (LeConte) – Fairfax Co.: Great Falls Park quarry, 21 May-18 June 2009, B. Steury and D. Smith (GWMP, 1). New POGO Record.

Selenophorus hylacis (Say) – Fairfax Co.: Great Falls Park quarry, 30 June-13 Aug 2006, B. Steury and D. Smith (GWMP, 1). New POGO Record.

Cerambycidae

This record increases the number of longhorned beetles known from the park to 81 species (Steury & MacRae, 2014).

Elytrimitatrix undata (Fabricius) – Fairfax Co.: Turkey Run Park river trail, 18 August-4 September 2009, B. Steury and D. Smith (GWMP, 1).

Chrysomelidae

The following records increase the number of leaf beetles known from the park to 107 species (Cavey et al., 2013; Steury et al., 2014) and those known from the Potomac River Gorge to 188 (Brown, 2008). Each species has been recorded in all of the Mid-Atlantic States (Staines & Staines, 2009). Documented host plants follow Clark et al. (2004).

Calligrapha bidenticola Brown – City of Alexandria: Daingerfield Island, collected on *Chenopodium album* L. adjacent to a patch of *Bidens* sp., 25 July 2016, B. Steury (GWMP, 1). Documented host plants are herbs in the family Asteraceae including *Ambrosia artemisiifolia* L., *Bidens frondosa* L., and *Bidens cernua* L.

Cryptocephalus badius Suffrian – Fairfax Co.: Turkey Run Park ravine, 22 June-6 July 2006, B. Steury and D. Smith (GWMP, 2). New POGO Record. Known host plants that occur near the collection site are the trees *Cercis canadensis* L., *Juglans nigra* L., and *Tilia* sp.

Systema marginalis (Illiger) – Fairfax Co.: Dyke Marsh Wildlife Preserve, 30 July 1998 and 2 July 1999, B. Steury and E. Barrows (GWMP, 2). Documented host plants found near the collection site include the herbs *Polymnia* sp. and *Polygonum* sp., the trees *Cercis canadensis* L., *Quercus rubra* L., and *Liquidambar styraciflua* L., and the woody vine *Parthenocissus*.

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LITERATURE CITED

Brown, J. W. 2008. The invertebrate fauna of Plummers Island, Maryland. Contribution XXX to the Natural History of Plummers Island, Maryland. Bulletin of the Biological Society of Washington 15: 1-226.

Cavey, J. F., B. W. Steury, & E. T. Oberg. 2013. Leaf beetles (Coleoptera: Bruchidae, Chrysomelidae, Orsodacnidae) from the George Washington Memorial Parkway, Fairfax County, Virginia. *Banisteria* 41: 71-79.

Clark, S. M., D. G. LeDoux, T. N. Seeno, E. G. Riley, A. J. Gilbert, & J. M. Sullivan. 2004. Host plants of leaf beetle species occurring in the United States and Canada (Coleoptera: Megalopodidae, Orsodacnidae and Chrysomelidae exclusive of Bruchinae). *Coleopterists Society Special Publication No. 2*. Sacramento, CA. 476 pp.

Downie, N. M., & R. H. Arnett. 1996. *The Beetles of Northeastern North America, Volume I. The Sandhill Crane Press, Gainesville, FL. 880 pp.*

Evans, A. V. 2014. *Beetles of Eastern North America*. Princeton University Press, Princeton, NJ. 560 pp.

Newton, A. E., M. K. Thayer, J. S. Ashe, & D. S. Chandler. 2001. Staphylinidae Latreille, 1802. Pp. 272-418 *In* R. H. Arnett, Jr. & M. C. Thomas (eds.), *American Beetles. Volume I. Archostemata, Myxophaga, Adephaga, Polyphaga: Staphyliniformia*. CRC Press, Boca Raton, FL.

Paiero, S. M., M. D. Jackson, A. Jewiss-Gaines, T. Kimoto, B. D. Gill, & S. A. Marshall. 2012. *Field Guide to the Jewel Beetles (Coleoptera: Buprestidae) of Northeastern North America*. University of Guelph, Guelph, Ontario, Canada. 411 pp.

Smetana, A. 1996. A review of the genus *Trigonodemus* LeConte, 1863, with descriptions of two new species from Asia (Coleoptera: Staphylinidae: Omaliinae). *Coleoptera, Schwanfelder Coleopterologische Mitteilungen* 19: 1-18.

Staines, C. L., & S. L. Staines. 2009. *The Chrysomelidae (Insecta: Coleoptera) of the Mid-Atlantic States*.

Pp. 341-363 *In* S. M. Roble & J. C. Mitchell (eds.), *A Lifetime of Contributions to Myriapodology and the Natural History of Virginia: A Festschrift in Honor of Richard L. Hoffman's 80th Birthday*. Virginia Museum of Natural History Special Publication No. 16, Martinsville, VA.

Steury, B. W. 2011. Additions to the vascular flora of the George Washington Memorial Parkway, Virginia, Maryland, and the District of Columbia. *Banisteria* 37: 3-20.

Steury, B. W., D. S. Chandler, & W. E. Steiner. 2013. *Vacusus vicinus* (LaFerte Senectere) (Coleoptera: Anthicidae): Northern range extensions to Virginia, Maryland, Missouri, and Kansas. *Banisteria* 41: 97-98.

Steury, B. W., G. P. Fleming, & M. T. Strong. 2008. An emendation of the vascular flora of Great Falls Park, Fairfax County, Virginia. *Castanea* 73: 123-149.

Steury, B. W., & T. C. MacRae. 2014. The longhorned beetles (Insecta: Coleoptera: Cerambycidae) of the George Washington Memorial Parkway. *Banisteria* 44: 7-12.

Steury, B. W., T. C. MacRae, & E. T. Oberg. 2012. Annotated list of the metallic wood-boring beetles (Insecta: Coleoptera: Buprestidae) of the George Washington Memorial Parkway, Fairfax County, Virginia. *Banisteria* 39: 71-75.

Steury, B. W., & P. W. Messer. 2014. Twelve ground beetles new to Virginia or the District of Columbia and an annotated checklist of the Geadephaga (Coleoptera, Adephaga) from the George Washington Memorial Parkway. *Banisteria* 43: 40-55.

Steury, B. W. & P. W. Messer. 2015. Noteworthy beetle records from Virginia and Maryland (Coleoptera: Anthicidae, Buprestidae, Carabidae). *Banisteria* 45: 61-62.

Steury, B. W., P. W. Messer, & J. F. Cavey. 2014. Noteworthy beetle records from Virginia, Maryland, and the District of Columbia (Coleoptera: Carabidae and Chrysomelidae). *Banisteria* 44: 23-25.

Webster, R. P., J. D. Sweeney, & I. DeMerchant. 2012. New Staphylinidae (Coleoptera) records with new collection data from New Brunswick, Canada: Omaliinae, Micropeplinae, Phloeocharinae, Olisthaerinae, and Habrocerinae. *Zookeys* 186: 7-29.

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A Tropical Butterfly Visits Virginia

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A male Mimic butterfly, *Hypolimnas misippus* (Linnaeus), was collected on 17 September 2016 near Waynesboro, Augusta County, Virginia. Another male Mimic was photographed in the same area the next day (Fig. 1). A male was again observed there on 22 September 2016. Dave Wenger, a naturalist and owner/operator of Wenger Vineyard discovered these butterflies as they fed on some grapes that had been accidentally dropped.

Two of the larval food plants of the Mimic are Mallow (Malvaceae) and Morning Glory (*Ipomoea*) (Klots, 1951). The butterflies were found in or near an area where these food plants were growing. This and the fact that the butterflies were in perfect, freshly emerged condition suggests that they were progeny of a female Mimic that visited the area earlier in the summer. Repeated searches of this area did not produce any additional sightings.

The Mimic exhibits two phenomena that are seen frequently in butterflies. One is sexual dimorphism in which the two sexes have a different form or appearance. The other is Batesian mimicry which allows a mimic to gain protection from predators by appearing very similar to another species of butterfly, the model, that is distasteful or poisonous. The model, typically, has a bold, highly visible color pattern that a predator can easily remember and will avoid. Once a predator learns that a butterfly with a particular color pattern is distasteful, the predator will avoid all butterflies with that pattern including the mimic.

The model for the Mimic butterfly is *Danaus chrysippus* (Linnaeus), also known as the Plain Tiger or African Monarch, a species that occurs in southern Asia and Africa. This butterfly feeds on milkweed in the larval stage and is thought to be poisonous due to toxins produced by the milkweed. Only females of the Mimic actually mimic *D. chrysippus*, whereas male Mimics are mimics in name only (Smart, 1975).

The Mimic butterfly is also native to southern Asia and Africa (Smart, 1975). It was introduced into the Caribbean region, possibly by a slave ship (Klots, 1951), where it now occurs without a model. There is some evidence that the butterfly may also have arrived on its own via trans-Atlantic wind-borne dispersal (Smith